



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil & Gas Management Program

DEP USE ONLY
Application tracking #

Proposed Alternate Method or Material for Casing, Plugging, Venting or Equipping a Well

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A proposed alternate method is subject to provisions in Section 211 of the Oil and Gas Act, Section 13 of the Coal and Gas Resource Coordination Act, and 25 PA Code §78.75 Alternate Methods. **Attach proof of notification of coal operator(s).**

Describe in reasonable detail using a written description and / or diagram:

1. the proposed alternate method or materials, and
2. the manner in which the alternative will satisfy the goals of the laws and regulations.

is requesting the below described Alternate Method of Casing to comply with Title 25, Chapter 78, sections 78.83c.(c) referring to production casing, and section 78.83b.(3) referring to cement lost circulation.

Purpose of Alternate Method:

78.83. (c) now restricts an operator from casing and cementing this formation with the fresh water surface casing string. This Alternate Method of casing addresses these concerns for the open hole completion and production of an oil/gas well.

Historic problem:

The Knox/Clarion sand is historically known to contain salt brine and/or is a gas production thief zone. This lost circulation zone may also lead to a natural gas migration incident if left exposed in the open well bore when gas pressure is applied, such as during a natural flow during drilling or the well's production phase.

Proposed Method:

1. After the required amount of conductor pipe is set, we propose to drill our surface hole and cement 410' of 8 5/8" surface casing to meet the requirements of section 78.83.
2. We will then drill a 7 7/8" hole through the Clarion/Knox formation to a depth of 50' below this sand. Run 780' of 6 5/8" casing and cement to surface. Although not considered Intermediate casing, a pressure test will be performed on this casing seat prior to the well treatment. The pressure test shall be conducted to the maximum anticipated after treatment pressure plus 20% for 30 minutes with no more than a 10% pressure loss. The well will then be produced through this 6 5/8" casing string with its annulus left vented to atmosphere. **The wells production pressure shall never exceed the tested pressure minus 20%.**

Note: If the pressure test fails, a string of production pipe on a packer will be left in the well to produce through.

*We believe this method is superior to the current sections 78.83b. (3) / 78.83c. (c) by permanently cementing the 8 5/8" casing to the surface, and pressure testing the 6 5/8" casing seat prior to the treatment and production. Although 78.83b (a) (3) calls for the production casing to be run to the top of the formation in the event the surface casing does not have cement returns, we believe the pressure test listed above exceeds that section.

Optional: Approval by Coal Owner or Operator

Signature _____ Date _____

Print or Type Signer's Name and Title

If optional approval is signed by coal owner or operator, the 15-day objection period may be waived.

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Approved by: (DEP Manager)

Conditions:

<input type="checkbox"/>	YES, See Attached
<input type="checkbox"/>	NO

Date